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the down direction for a given allocation period indicating that said transmission channel is allocated in the up direction for the following allocation period;

*A*  
*Chen*  
wherein a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that not only said transmission channel, also referred to as the authorization channel, but also consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following allocation period, said fixed station including:

a transmitter that transmits data in transmission channels over said down frames, as well as transmission authorizations over some of the transmitted channels;

a receiver that receives transmission channels over said up frames; and

a controller that controls said transmitter and said receiver, so as to enable said method to operate.

### REMARKS

Claims 1-7 are pending in the application. By this amendment, claims 6 and 7 are amended. In accordance with the new Patent Office amendment rules, marked-up changes to the claims and specification shown in the foregoing Amendments are included in the Appendix attached herewith. For the reasons discussed in the foregoing amendments and following Remarks, Applicant respectfully requests withdrawal of the rejection.

#### **I. The Drawings**

In the Office Action, the Drawing Review Branch indicates that the drawings in the present application were submitted as informal. However, on the application transmittal, a copy

of which is attached herewith, Applicant indicated that the drawings are formal. Thus, Applicant respectfully submits that the drawings are formal, and should be classified as such for examination purposes.

## **II. Objections**

The Examiner objects to claims 6-7 under 37 C.F.R. § 1.75(c), for alleged improper dependent form. As shown in the foregoing amendments, Applicant has amended claims 6 and 7 to overcome the objections, and place the claims in proper form as method claims. Accordingly, withdrawal of the objections is respectfully requested.

## **III. Claims 6-7 are in proper condition under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph**

Claims 6-7 stand rejected under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, due to alleged indefiniteness. As shown in the foregoing amendments, Applicant has amended claims 6 and 7 to overcome the rejections. Accordingly, withdrawal of the rejection under §112, 2<sup>nd</sup> paragraph is respectfully requested.

## **IV. Claims are not obvious under 35 U.S.C. § 103(a)**

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) over Engel et al. (U.S. Patent No. 5,197,125, hereafter "Engel"). Applicant respectfully submits that Engel fails to disclose or suggest all of the features recited in claims 1-7, as required for a prima facie rejection under §103(a). Accordingly, Applicant respectfully requests withdrawal of the rejection.

Engel discloses an access assignment in a DAMA communication system. As disclosed at column 4, lines 4-12, a control terminal 10 generates control information for insertion during the same time slots during each time frame or a sequence of time frames. Further, the

information is continuously updated during each set of time frames. Further, column 7, lines 49-51 state that if the duration of messages to be transferred exceeds the duration of a time frame, a routine is performed to remove those computed durations exceeding the time frame for the request from a matrix. Applicant respectfully submits that Engel specifically teaches only allocation of transmission channels for the same time period, and not for the following time period, and does not disclose any predefined relationship between adjacent time slots.

The present invention is directed to a method of allocating data transmissions to a mobile station in a half-duplex mode in a mobile packet-mode telecommunications network. By permitting allocation of transmission channels for the following frame, there is a substantial increase in the capacity per frame.

Applicant respectfully submits that Engel fails to disclose or suggest all of the features recited in claims 1-7. As admitted in the Office Action, Engel fails to disclose a method in which a transmission authorization received over a transmission channel in the down direction for a given allocation period indicating that the transmission channel is allocated in the up direction for the following allocation period, as recited in claim 1. As also admitted by the Examiner, Engel fails to disclose consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following allocation period, as recited in claim 1. Applicant respectfully submits that it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify Engel to produce the features recited in claim 1.

The Examiner asserts that it would have been obvious to modify Engel, because such a modification would allow Engel to produce the features recited in claim 1, as shown at page 4, lines 12-16 of the Office Action. Applicant respectfully submits that simply stating that a modification will produce the features recited in a claim does not provide the necessary evidence of motivation for a prima facie case of obviousness.

Further, at page 4, lines 16-20 of the Office Action the Examiner states that such a modification to Engel would have been simple. Applicant respectfully submits that the mere assertion that a modification would have been simple does not provide sufficient motivation for one of ordinary skill in the art to modify Engel to produce all of the features recited in claim 1, and to do so would result in hindsight reconstruction, which is impermissible.

Claims 2-7 depend from claim 1, and are allowable for at least the same reasons as claim 1. Further, Applicant respectfully submits that the Examiner's assertion that it would have been obvious to modify Engel, solely on the basis that it would have been simple to implement, and without any further motivation, is insufficient to establish a prima facie case of obviousness. Applicant respectfully submits that the Examiner's rejection of claims 3-7 are improper for at least the same reasons as claim 2. Accordingly, Applicant respectfully requests withdrawal of the rejection under §103(a).

#### **V. Conclusion**

Reconsideration and allowance of all claims are respectfully requested in view of the following remarks. In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any points remain in issue which the Examiner

Amendment Under 37 C.F.R. § 1.111  
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feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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Mainak H. Mehta  
Registration No. 46,924

SUGHRUE, MION, ZINN,  
MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, D.C. 20037-3213  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

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**APPENDIX**  
**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**Please amend claims 6 and 7 as follows:**

6. (Amended) A mobile station, for implementing a method of [allocation according to claim 1]allocating data transmission channels to a mobile station, in particular in half-duplex mode, in a mobile telecommunications network of the type using packet mode and having multiple access by multiplexing transmission channels, in which method the transmission channels allocated to a mobile station, respectively in a "down" direction from the network to the mobile station, and in an "up" direction from the mobile station to the network, can change at each "allocation period", a transmission authorization received over a transmission channel in the down direction for a given allocation period indicating that said transmission channel is allocated in the up direction for the following allocation period;

wherein a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that not only said transmission channel, also referred to as the authorization channel, but also consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following allocation period, said mobile station including:

[receive means for receiving]a receiver that receives transmission channels over said down frames[,] and [for detecting]detects transmission authorizations in the received channels;

[transmit means for transmitting]a transmitter that transmits transmission channels over said up frames; and

[control means for controlling]a controller that controls the [transmit means]transmitter and the [receive means]receiver, so as to enable said method to operate.

7. (Amended) A fixed station for a telecommunications network, for implementing [the]a method [according to claim 1]of allocating data transmission channels to a mobile station, in particular in half-duplex mode, in a mobile telecommunications network of the type using packet mode and having multiple access by multiplexing transmission channels, in which method the transmission channels allocated to a mobile station, respectively in a “down” direction from the network to the mobile station, and in an “up” direction from the mobile station to the network, can change at each “allocation period”, a transmission authorization received over a transmission channel in the down direction for a given allocation period indicating that said transmission channel is allocated in the up direction for the following allocation period:

wherein a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that not only said transmission channel, also referred to as the authorization channel, but also consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following allocation period, said fixed station including:

[transmit means for transmitting]a transmitter that transmits data in transmission channels over said down frames, as well as transmission authorizations over some of the transmitted channels;

[receive means for receiving]a receiver that receives transmission channels over said up frames; and

[control means for controlling]a controller that controls said [transmit means]transmitter and said [receive means]receiver, so as to enable said method to operate.